

Remarks

The present response is to the Office Action mailed the above-referenced case on June 09, 2005, made final. Claims 1-28 are standing for examination. The Examiner has rejected claims 1, 3-8, 12-22 and 24-27 under 35 U.S.C. 102(e) as being anticipated by Basso et al. (U.S. 6,370,119), hereinafter Basso. Claims 2 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1 and 8, and further in view of Zauman et al. (U.S. 6,658,479), hereinafter Zauman. Claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1 and 24, and further in view of Aviani et al. (U.S. 6,789,125), hereinafter Aviani.

Applicant has carefully studied the references provided by the Examiner, and the Examiner's rejections and statements of the instant Office Action. In response applicant provides argument to more particularly point out to the Examiner the subject matter of applicant's invention regarded as patentable, and which is not taught or suggested in the prior art presented, either singly or in combination. As an aid in prosecution applicant reproduces claim 1 below for convenience.

The Examiner has stated in his remarks that Basso discloses applicant's data flow controlling system comprising all of applicant's claimed limitations, including that the cost values at the selected nodes are associated individually with a specific destination or destinations (Fig. 3, #31) such that manipulation of such cost value assignments enables load balancing of data traveling through the network (Fig. 3, #33 and #34). Applicant respectfully disagrees with the Examiner's interpretation of the teachings of Basso as reading on applicants above claimed limitations. Applicant argued said limitations in the previous response filed.

The Examiner kindly responded to said arguments stating that; "It is helpful, in order to provide load balancing in the network, to take into account bandwidth parameters in the path selection algorithm and to select, among the shortest available paths, the path providing the widest bandwidth (col. 2, line 5-15)." Basso goes on to teach the usage of

bandwidth as restrictive costs (abstract; col. 2, lines 23-35 and 45-55) to determine optimum routes. In other words, bandwidth considerations are used as part of the decision in routing data to a specific destination or destinations, and the definition of load balancing is thus fulfilled. Even if Basso does not use that specific term elsewhere in the art, the functional equivalency is clear.

Applicant points out that the independent claims presented for examination include limitations such as stated in claim 1, wherein a network administrator monitoring the network or portion thereof uses the network access system and control software to assign and implement cost values at the selected nodes, the values associated individually with a specific destination or destinations, the values establishing forwarding costs to be incurred at the selected nodes, and link costs to be incurred per data link between the nodes such that manipulation of such cost value assignments enables load balancing of data traveling through the network.

Applicant argues that Basso teaches that costs are related to links as restrictive costs and additive costs. Path costs between a source and destination are determined by calculating the link costs between the two. This calculation must occur at every node. Basso teaches that administrative weight is also a part of the calculation. Applicant did not fully understand Basso's use of administrative weight in the previous response, but now realizes it is not a "cost" value as known in the art.

Column 5, lines 7-28 of Basso continue to teach (emphasis added) that another type of link characteristics are the so-called additive costs associated to each link, an example of which is path length. Path length is a function of the overall transmission delay imposed by the path between two end nodes. In most high speed networks, the delay (path length) is not a major consideration since the worst-case delay through such a network is nearly always acceptable. In the present embodiment of the invention the additive cost considered is the so-called administrative weight as defined in the PNNI standard. The administrative weight is a value set by the network operator. It is used to indicate the relative desirability of using a link or node for whatever reason significant to the network operator. Administrative weight is a required topology metric for all service

categories. This is a dimensionless value, the default value of which is set to a particular value referred to as DefaultAdminWeight. A higher value describes a link or node which is less desirable for use. The administrative weight of a path is defined as the sum of the administrative weights of the links and nodes contained in the path.

Applicant argues that the only value stored in the topology table of Basso that is capable of being manipulated in order to balance the data load in the network by an administrator is the administrative weight. The Examiner, along with the art of Basso suggests that "costs" as known in the art, are typically bandwidth forward and reverse available on links between nodes. Clearly, not only does Basso fail to teach that costs are manipulated in order to balance the load, but teaches away from manipulating costs, specifically teaching that arbitrary values (administrative weight) in the algorithm are used to control the load balancing.

Applying and configuring a forwarding cost at a single router provides more data flow efficiency and cost-effectiveness in the network, and assigning and configuring forwarding costs per DAG destination label provides the administrator with much finer control over data paths to a specific destination in a given network.

Based on applicants above arguments regarding Basso, applicant believes that the independent claims, as presented, are easily patentable over the art of Basso. Although Basso may be capable of providing manual load balancing, it certainly is not performed as claimed in applicant's invention.

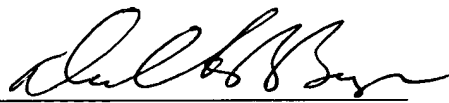
Claims 8 and 24 are applicant's method claims for altering an established course of a data path, in accordance with the limitations of claim 1, and the Examiner has rejected both claims based on the reasons applied to the rejection of the base claims. Therefore, as argued above by applicant on behalf of claim 1, claims 8 and 24 are also then patentable over the primary reference of Basso.

Claims 2 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1 and 8 above, and further in view of Zauman, and claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1 and 24, and further in view of Aviani.

All of the claims rejected above are depending claims, and the above secondary references are relied upon by the examiner to teach or suggest well known aspects in the art of endeavor. As applicant strongly believes that Basso has been demonstrated by to be deficient in teaching or suggesting, as required in a prima facie rejection, all of the limitations of applicant's base claims as supported in the specification of the claimed invention, depending claims 2-7, 9-23 and 25-28 are then patentable on their own merits, or at least as depended from a patentable claim.

As all of the claims standing for examination have been shown to be patentable over the art of record, applicant respectfully requests reconsideration, and that the present case be passed quickly to issue. If there are any time extensions needed beyond any extension specifically requested with this response, such extension of time is hereby requested. If there are any fees due beyond any fees paid with this amendment, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,
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